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Incomplete Contracts and Opportunism in Franchising Arrangements

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Incomplete Contracts and Opportunism in Franchising Arrangements: The Role of Termination Clauses

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Abstract: Economic theorists argue that broad termination rights allow franchisors to police opportunism on the part of franchisees which have an incentive to free ride on the franchised trademark. However, in principle, these termination rights could generate another form of opportunism as franchisors then have an incentive to skim establishments that prove to be particularly profitable. We use the adoption of state franchise termination laws to determine which form of opportunism is more important on the margin. Using panel data on fast food establishments, we find that laws restricting franchisor termination rights lead to a reduction in franchising, and this reduction is not offset by the concomitant increase in franchisor-operated establishments. We also examine state employment rates in industries characterized by high rates of franchising relative to other industries where franchising is rare, finding that employment in franchise industries drops, as a proportion of total employment, by about 7 percent when states enact restrictions on franchisor termination rights. Both sets of results imply that the potential for franchisee opportunism is stronger, and restrictions on termination rights are likely to reduce joint surplus among franchisors and franchisees.

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JEL Codes: D21; D23; D86; G38; K12; K22; L14; L15; L21; L22; L24; L25

1. INTRODUCTION

As with any incomplete contract, the franchise contract has the potential to generate *ex post* opportunism. Most economic analyses of the franchise form suggest that opportunism arises as franchisees face a moral hazard because they do not bear most of the loss in the value of the franchise trademark when they fail to uphold the franchisor's quality standards.

Because it is generally impossible to specify in perfect detail what those quality standards are under all contingencies, franchisors attempt to limit this moral hazard by including broad termination rights to discipline the franchisee's opportunism. By contracting for at will termination, in which the franchisee loses its franchise-specific investment, this kind of opportunism will be disciplined. In theory, this allows for better quality control, making the franchisor and franchisees collectively better off than they would be if the moral hazard were left unchecked.[1] Perhaps it is unsurprising then that most franchise contracts contain at will termination clauses.

However, these broad termination rights have the potential to generate a different kind of opportunism. Given the opportunity, it may be rational for franchisors to exercise their termination rights to expropriate the returns from a franchisee's investment in market discovery and development by terminating contracts in those markets that turn out to be unexpectedly profitable, allowing the franchisor to service the markets itself without having to split revenues with a franchisee or to resell the franchise at better terms.

Worries over cream-skimming of this kind have led a large number of states to limit franchisor termination rights by statute beginning in the early 1970s. Generally, these statutes require good cause for a franchisor to be able to terminate its contract, such as violation of specific contract terms or fraud on the part of the franchisee.[2] If expectations of this kind of opportunism outweigh expectations of the costs of moral hazard, laws restricting termination rights could make both franchisors and franchisees better off because they serve as a pre-commitment device for the franchisor. In the absence of cream-skimming fears, the joint surplus will be expanded as franchisees have

[1] For an early exposition of this argument, see Epstein (1975).
[2] The vast majority of these statutes (i.e., all states with termination statutes except IL, MI, VA, and WA) apply to a franchisor's decision not to renew a franchisee's contract as well. Additionally, most of the statutes give a franchisee the right to cure any cause for termination raised by the franchisor, and they all require that notice be given to the franchisee up to 180 days before the relationship is terminated. Further, most states have indicated by statute that franchisees can not waive these protections.

more of an incentive to invest in market discovery and development. This is likely to lead to a greater expansion of the business as more markets will become profitable once opportunism is controlled.

To determine which form of opportunism has a greater effect in franchising transactions, we use state laws limiting franchisor termination rights to identify the effect of at will termination on both the choice to franchise and on franchisor expansion generally. In our first set of empirical tests, using firm-level data on franchising in the fast food industry, we show that eliminating at will termination leads to a reduction in franchising and a smaller increase in franchisor operated establishments. To exploit more state law changes, we then examine state employment in industries characterized by a high degree of franchising, and find that restrictions on at will termination are associated with a decrease in the franchised industries' employment rates relative to employment rates in industries with little franchising. Both the direct and indirect tests support the view that the expectation of franchisee opportunism has a stronger effect on franchise transactions.

2. FRANCHISING AS A WAY TO MITIGATE TRANSACTION COSTS

Paul Rubin (1978) is the first scholar to apply the insights of transaction cost economics to explain the existence of franchising as a business form. Previously, as described by Rubin, commentators uniformly suggested that franchising arises when capital constraints limit a franchisor's ability to expand. Capital theory demonstrates that this suggestion is implausible as the cost of capital available through franchising is necessarily higher than if the franchisor simply issued shares in the overall franchise chain due to the relative concentration of franchisee risk in the franchise form.

Instead, Rubin argues that Coase's (1937) theory of the firm explains the existence of the franchise form. Drawing on the agency cost insights of Alchian and Demsetz (1972) and Jensen and Meckling (1976), the Rubin model of franchising rests on the relative difficulty of monitoring when the franchised unit is not located near to the franchisor or when the entire firm is quite large. To avoid the need for costly monitoring, the franchisee receives a portion of the revenues flowing from the franchise. However, the franchisor retains some share of revenues either directly or indirectly through contractual provisions requiring the franchisee to purchase its supplies from the franchisor at above marginal cost.

To explain this seemingly inefficient revenue sharing scheme, Rubin argues that the franchisor needs to be incentivized to provide on-going support such as advertising. That is, in the absence of countervailing incentive structures, both the franchisee and franchisor will not invest optimally in the franchised establishment, from the joint surplus perspective.

Bhattacharyya and Lafontaine (1995) formally model this "double sided moral hazard" and show how the need for these incentive effects leads to linear revenue sharing formulas in franchise contracts. Lafontaine (1992) finds that the observed degree of franchising among franchisors is consistent with this model, and Lafontaine and Shaw (1999) use panel data on franchise contract terms to show support for the double moral hazard model.

3. THE ROLE OF TERMINATION CLAUSES

Brickley, Dark, and Weisbach (1991) and Klein (1995) present termination clauses in franchise contracts as commitment devices in cases where contracts are incomplete. That is, if it is costly (or impossible) to spell out a franchisee's duties in complete specificity, franchisors will attempt to design self-enforcement mechanisms that give the franchisee an incentive not to cheat. In both models, as long as the capitalized value of future rents available to the franchisee (W) is greater than the one-shot gain available from cheating (F), the franchisee will not cheat, assuming that the franchisor can terminate the franchise arrangement in the event the franchisee does cheat. The franchisor will franchise the individual establishment whenever the capitalized value of future rents from the establishment as a franchisor-run unit (X) is less than W-F.[3]

If the franchisor's ability to terminate a franchise contract is limited, F is effectively increased, either because the franchisor will have to pay some severance penalty to the franchisee in order to terminate, increasing the one-shot gain from cheating, or because termination itself will not be possible, turning the cheating gain into a multi-period gain. Thus, as spelled out by Brickley, Dark, and Weisbach (1991), laws restricting franchisor termination rights will lead to less franchising, as fewer units meet the $X < W - F$ condition. Interestingly, because franchisees are assumed to be able to generate higher rents in the operation of units than are franchisors, the reduction of franchised units also leads to an aggregate reduction of units. That is, while the franchisor will find it profitable to run some of the units it would have franchised were it

[3] Both models suggest that X will be lower than W (i.e., the rents available to the franchisee exceed the rents available to the franchisor) because the franchisee will be better able to control agency costs among his employees. This is consistent with Rubin's original insight regarding why franchising exists at all.

able to commit the franchisee not to cheat, there will be some marginal units that are no longer profitable to run or to franchise.

However, Brickley, Dark, and Weisbach (1991) also consider the possibility that laws limiting termination police opportunism on the part of franchisors. That is, if franchisors use their termination rights to take over units that turn out to be more profitable than expected, and franchisees do not correctly estimate the expected cost of this, there will be too much franchising as some franchisees pay above their true reservation prices for their units.[4] Thus, the passage of termination restrictions will be associated with lower levels of franchising in this scenario as well.

Brickley, Dark, and Weisbach (1991) rule out this possibility by focusing their empirical analysis on differences across industries. Specifically, they argue that if termination clauses primarily discipline franchisee cheating, then the effect of termination limit laws on the rate of franchising will be most pronounced in industries with mostly non-repeat business. In industries with significant repeat business, policing the franchisee will be less important since the revenue-sharing mechanism will already induce the franchisee not to cheat. Otherwise, it will lose its repeat business and suffer a large revenue loss. In industries without much repeat business, the revenue-sharing mechanism will not provide as much discipline, making the potential for termination more important. On the other hand, if termination clauses primarily allow the franchisor to exploit the franchisee, no such cross-industry condition exists. There should be no systematic difference in the change in franchising across industries.

[4] Brickley, Dark, and Weisbach (1991) point out that miscalculation on the part of franchisees is a necessary condition for this possibility to occur. Otherwise, the effect will be priced in the revenue sharing terms of the contract.

Brickley, Dark, and Weisbach (1991) show that the effect of termination restrictions is greater in the industries they classify as particularly subject to non-repeat customers (restaurants, hotels, and auto rental agencies) as compared to the effect in other industries. One limitation of the Brickley, Dark, and Weisbach (1991) empirical analysis, however, is their reliance on purely cross-sectional data which precludes them from isolating the shock of legal changes and removing any coincidental heterogeneity between industries in states with termination restrictions and those without. Another potential limitation with regard to their test to rule out the franchisee exploitation hypothesis is the need to make assumptions regarding which industries fall into the repeat business category and which do not.

We attempt to improve the empirical analysis of the welfare effects of termination rights by avoiding both of these limitations. First, we use panel data to analyze the effects of laws restricting franchisor termination rights in the hope of ruling out the possibility that unobservable effects generate an omitted variables bias in the Brickley, Dark, and Weisbach (1991) analysis. With respect to the franchisee exploitation hypothesis, we examine the effect of termination laws on the number of franchisor operated units as well. If any observed decline in franchising resulting from termination restrictions comes about because of the elimination of "excessive" franchising, we should not find that franchisor-operated units increase when termination restrictions come into effect.

4. MICRO ANALYSIS OF TERMINATION RESTRICTIONS

We collected information on the number of franchised and franchisor operated restaurants in each state for the following firms: Burger King; Dunkin Donuts; Domino's Pizza; and KFC. Our data come from the Uniform Franchise Offering Contracts (UFOC) filed with the Attorney General's Office in the state of Maryland. Item number 20 on the UFOC requires the disclosure of this information for all firms offering franchises in the state. We focused on these firms in particular because we need data surrounding the year 1992 to exploit the most recent termination law which was passed in Iowa. Because of this constraint, we did not examine some obvious candidate firms (e.g., McDonald's which only started disclosing this information in 1992).[5] We chose those fast food firms that ranked most highly on *Entrepreneur Magazine's* Franchise 500[6] which satisfied the data availability constraint.

For our micro analysis, we are only able to exploit the most recent legal change (Iowa 1992) in a panel data framework, which requires both pre and post law change data to estimate the effect of the law independent of state fixed effects. Descriptive statistics for the firms are available in Table 1.

For our analysis, because the dependent variable takes on only integer values, we estimate negative binomial models[7] for the number of franchised units, franchisor operated units, and total units, all including firm-state specific dummies, year dummies,[8]

[5] McDonald's responded to inquiries for this information by indicating (through its corporate counsel) that it does not have figures for the period before 1992.
[6] http://www.entrepreneur.com/franzone/rank/0,6584,12-12-F5-2006-0,00.html
[7] Although the results are substantially the same if we estimate Poisson models, we present the more general negative binomial models since many of our state firm cells have no franchisor operated units for a number of years.
[8] We are unable to include firm-specific year dummies because doing so generates a log-likelihood function that does not converge for the specifications for the franchisor run units. For the franchised outlets specifications, including firm specific year dummies does not change our results in terms of sign or significance, while the magnitude of the effect drops slightly. OLS models that include firm-specific year

and a host of covariates, including state population, the percent of state population between the ages of 15 and 19, percent of state population with a high school education, real per capita income, and the percent of state population that is black.

We present results from these models in Table 2. We find that when Iowa enacts its restriction on franchise termination, the number of franchised fast food restaurants in the state declines by about 23 percent relative to Iowa's pre-law baseline and relative to contemporaneous changes in franchising in other states. The effect is statistically significant at the 2 percent level.[9]

Again, this decline in franchising could be the result of franchisors no longer being able to control franchisee opportunism, or it could come about because franchisors are no longer able to pressure franchisees into buying franchises at prices above their true reservation price once the potential for cream skimming is included in the franchise price. To investigate this possibility, we also examine franchisor operated units. If termination restrictions simply temper franchisor opportunism, we should find no systematic relationship between passage of the law and the number of franchisor-operated units.[10]

In the second column of Table 2, we present results for franchisor run units. We find that passage of Iowa's termination restriction is associated with a 163 percent increase in franchisor operated units. This effect is statistically significant (p = 0.000).

Lastly, we examine the effect of the termination restriction law on the total number of fast food restaurants. If franchisees can generally better control agency costs,

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dummies generate very similar effects in terms of sign, magnitude, and statistical significance for the other dependent variables.

[9] If we cluster our standard errors by state, as suggested by Bertrand, Duflo, and Mullainathan (2004) to account for serial correlation generated by inertia in state laws, our p values for the treatment effects actually improve.

[10] Perhaps we should even find a negative relationship between franchisor operated units and termination restrictions as the franchisors can no longer cream skim.

as is assumed in the economic literature on franchising, we should find that the increase in franchisor operated units is not large enough to offset the decrease in franchised units when termination restrictions go into effect. We do find such an effect. Total restaurants decrease by 20 percent when the Iowa law goes into effect. This coefficient is statistically significant at the 6 percent level.

One concern about our analysis arises from the fact that our identification strategy relies on a single law change which increases the potential for time-varying unobservable effects to drive our result. To mitigate this possibility, we re-estimate our models using only data from Midwestern states. Thus, if our original results are driven by regional shocks that are coincidentally related to the Iowa law, we should not find the same treatment effects when we examine regional data only.

We present the Midwest only results in the last three columns of Table 2. We find substantially the same results when we restrict the data in this way. Franchised restaurants decrease by 18 percent ($p = 0.068$). Franchisor-operated units increase by 114 percent ($p = 0.044$), and total units decline by 21 percent ($p = 0.054$).

5. EFFECT OF TERMINATION RESTRICTIONS ON EMPLOYMENT

The foregoing analysis suggests that laws limiting franchisor termination rights generate welfare losses for franchisors and franchisees collectively, as a franchisor's ability to control opportunism is constrained, leading it to reduce the number of outlets it opens in a given state. However, it is not clear if this result is peculiar to Iowa or whether it is likely to occur whenever states restrict termination rights.

We are limited to examining Iowa's law change due to the non-existence of franchise unit data surrounding the enactment of similar laws in other states. However, between 1971 and 1992, 16 states passed such laws as described in Brickley, Dark, and Weisbach (1991) and Stover (2004).[11] To exploit this variation, we investigate employment rates in industries that are heavily franchised. If our results for franchise units are externally valid, we should find that employment in these industries declines as a percent of total state employment since franchisors restrict their growth when termination rights are limited.

We collected data on the proportion of employees in a state employed in four SIC codes that historically have a relatively high rate of franchising: Automotive dealers and service stations (624); eating and drinking places (627); hotels and other lodging places (805); and automotive repair, services, and parking (825). These data come from the Bureau of Economic Analysis and are available from 1969 to 2000. Descriptive statistics are presented in Table 3.

Exploiting all of the existing termination restriction laws, we perform a differences-in-differences analysis including industry-specific state fixed effects (λ) and industry-specific year dummies (τ), as well as real state per capita income to control for the possibility that economic growth affects the composition of a state's labor force. Our dependent variables are the number of workers in each of the industries listed above, divided by the total number of workers in the state.[12] Thus, we have four observations for each state in each year. By looking at the labor force share in each of these industries,

[11] Neither source notes that D.C. had a franchise termination restriction in effect from 1989-1998. Our results are unchanged if D.C. is coded as having such a restriction.
[12] The results that follow are virtually unchanged if we use state population as the denominator of the dependent variable and as the weighting factor.

instead of the number of workers, we can more precisely control for generic changes in a state's overall labor force. We perform weighted least squares where each observation is weighted by the total labor force in the state, and we use robust standard errors to allow for heteroskedasticity across states. Formally, we estimate the following regression:

$$\left(\frac{\text{workers}_{ist}}{\text{workers}_{st}}\right) = \alpha \cdot law_{ist} + \beta \cdot income_{st} + \lambda_{is} + \tau_{it}$$

where *i* represents the industry, *s* stands for the state, and *t* is the year.

We present the results from this differences-in-differences analysis in the first column of Table 4. We find that enactment of a law restricting a franchisor's termination rights leads to a decrease in the proportion of the state workforce that is employed in each of the franchise-heavy industries we examine of about 1 percent in relative terms and the effect is statistically significant at the 7 percent level.

The differences-in-differences analysis, however, does not provide the most powerful available test of the effect of termination laws on employment in franchising industries. Specifically, there may be other variables that are coincidentally correlated with the enactment of franchise termination laws that affect employment in the industries we examine. To control for this possibility, we also collected data on the proportion of the state workforce that is employed in four other industries that have similar wage profiles to the ones identified above, while also exhibiting relatively low levels of franchising. For these within-state control groups, we chose: General building contractors (310); lumber and wood products (413); apparel and other textile products (462); and depository and non-depository institutions (710). Data on these industries allow us to perform a differences-in-differences-in-differences (DDD) analysis in which we independently control for state-specific year dummies (υ) to net out any unobservable variables that affect this segment of the workforce. Additionally, we control for industry-specific state fixed effects (λ) and industry-specific year dummies (τ) generating the following regression:

$$\left(\frac{\text{workers}_{ist}}{\text{workers}_{st}}\right) = \alpha \cdot law_{ist} + \lambda_{is} + \tau_{it} + \upsilon_{st}$$

In this regression, the law variable only takes the value of one in states with termination laws for those industries assumed to have a high degree of franchising to avoid collinearity with the state year dummies. Our identification strategy then is to examine changes in the portion of the state's workforce in franchising industries when termination laws are adopted relative to non-franchising industries in the same state during the same year, net of any existing baseline within the state and net of any contemporaneous changes in franchising industries in states without termination laws. Again we allow for robust standard errors and we weight each observation by the size of the state's workforce.

We present results from this regression in the second column of Table 4. In this specification, we find that adoption of a termination law leads to a decrease in the proportion of the state's workforce in franchising industries of about 7 percent (p = 0.000).[13]

These employment results largely support the conclusions we draw from our firm-level analysis above. Namely, the passage of restrictions on a franchisor's termination rights lead franchisors to reduce their presence in the states that pass such laws. However, as discussed above, the welfare effects of this reduction are ambiguous. If the

[13] Again, if we instead cluster our standard errors by state to account for serial correlation, our treatment effects maintain their statistical significance.

reduction comes from eliminating excessive franchising, in which franchisees are essentially tricked into paying above their reservation prices for the franchise unit, then the reduction is welfare improving. If, on the other hand, the laws limit a franchisor's ability to police franchisee opportunism, the employment reductions are welfare reducing for franchisors and franchisees collectively.

Borrowing from Brickley, Dark, and Weisbach (1991), we examine whether there is a differential employment effect across franchising industries. Specifically, if broad termination rights mostly serve to police franchisee opportunism, any estimated treatment effect should be bigger for those industries that do not generally enjoy repeat business. Since the revenue sharing incentive will limit opportunism on the part of franchisees that experience a large amount of repeat business, the importance of the termination option is diminished. Of our four franchising industries, Brickley, Dark, and Weisbach (1991) suggest that hotels and restaurants fall into the category of non-repeat business, while auto dealers and auto service stations are more likely to rely on repeat business.

We examine this differential treatment effect in two different ways. First, we re-estimate our DDD analysis using only the observations from the franchising industries and coding our law_norepeat variable as taking the value of one for only the two industries that do not exhibit repeat business:

$$\left(\frac{\text{workers}_{ist}}{\text{workers}_{st}}\right) = \alpha \cdot law\_norepeat_{ist} + \lambda_{is} + \tau_{it} + \upsilon_{st}$$

In this specification, the treatment effect is identified by how employment changes in the franchise industries without repeat business relative to simultaneous changes in the repeat business franchise industries within the state, pre-law baselines for the franchises in each state, and contemporaneous changes in the industries in states without termination laws.

We present these results in the first column of Table 5. We find that passage of termination restrictions lowers the fraction of state employment in non-repeat business franchise industries by almost 2 percent relative to repeat business franchise industries, and the effect is statistically significant at the 4 percent level.

In the second column of Table 5, we present our DDD regression using all industries, franchising and non-franchising, and we include both the law and the law_norepeat variables. This specification will also tell us whether or not the franchising industries without repeat business suffer a larger decline than franchising industries with repeat business when termination restrictions go into effect. We estimate the following regression:

$$\left(\frac{\text{workers}_{ist}}{\text{workers}_{st}}\right) = \alpha \cdot law_{ist} + \beta \cdot law\_norepeat_{ist} + \lambda_{is} + \tau_{it} + \upsilon_{st}$$

Once again, we find that termination restriction laws lead to a decline in the proportion of the state workforce employed in franchise industries. The decline is about 6 percent (p = 0.000). Further, the industries without repeat business experience an additional decline of about 2 percent (p = 0.046).[14] These results support the conclusion that no-fault termination clauses in franchise contracts primarily serve to police franchisee opportunism, and laws requiring that terminations only occur for good cause are welfare reducing for the relevant parties.[15],[16]

[14] These relative effects (as well as the statistical significance) are virtually unchanged if we run the regressions on the natural log of the employment share to remove any scaling effects from our data.
[15] For robustness purposes, we also re-ran all of the specifications above limiting the dataset to 1969-1991 (i.e., just before the Iowa franchise termination restriction law was passed). Some commenters have suggested to us that since the Iowa law was so much more severe than those passed previously, it may be driving our employment results for reasons other than those suggested in this paper. Specifically, franchisors in some industries threatened to boycott Iowa because of its law. If we drop observations for 1992 onward, our results are largely unchanged. We do find that if we enter a separate control for Iowa's termination law, it does appear to generate a slightly larger negative effect on employment than the other

6. CONCLUSION

Franchise relationships have the potential to generate *ex post* opportunism on the part of both franchisors and franchisees. Due to the public good nature of the franchise trademark, franchisees have an incentive to shirk by providing a sub-optimal level of service since they do not bear the full cost of any resulting deterioration of the trademark's value. To limit this problem, franchise contracts generally contain termination at will clauses to commit the franchisee not to shirk. As long as the franchisee gains more from future franchise rents than it can get from cheating, the broad termination provision will induce the franchisee not to cheat.

However, such broad termination rights could generate franchisor opportunism, as it seeks to appropriate the franchisee's investments in market discovery and development in markets that turn out to be particularly profitable. To combat this possibility, a number of states have passed laws requiring good cause for the termination of a franchising arrangement.

We show that these laws induce franchisors to limit their business growth. Using micro data on the number of franchised and franchisor-operated fast food restaurants, we show that passage of these laws leads to a decrease in both franchised and total fast food

termination laws generally. Interestingly, the boycott story is not borne out by the data as fast food franchising did grow nominally in Iowa for the firms in our dataset (as well as for McDonald's, for which we have data from 1992 onward) even if it grew less quickly than in other states, as implied by our results in Table 2.

[16] We also attempted to exploit some of the heterogeneity in the termination laws to examine robustness further. Specifically, we looked at what happened when states granted franchisees the right to cure any cause for termination raised by the franchisor, and we looked at whether states exempted renewals from the cause requirement. Consistent with the hypothesis discussed here, we found that granting a right to cure reduced employment in franchising industries and exempting renewals increased employment, though the coefficients were neither large nor statistically significant and our "termination law" coefficient remained unchanged. It is not possible to exploit notice requirements since every state with a termination restriction, except Virginia, has a similar notice requirement.

restaurants in a state. This reduction appears to be a result of the restriction on the franchisor's ability to constrain franchisee opportunism. We find similar results when we examine state employment rates in industries that typically franchisee.

This provides strong evidence that franchisee opportunism is generally a more important problem than franchisor opportunism. Arguably, this makes sense, as franchisors will generally already be policed by reputation effects whereby a franchisor that repeatedly engages in opportunistic behavior will have trouble franchising in the future, as potential franchisees avoid franchisors with bad reputations or extract significantly better contract terms in the revenue sharing dimension. Franchisees, on the other hand, are likely to have little to lose in reputation terms by acting opportunistically given their relative anonymity.

As a policy matter, this suggests that laws limiting franchisors' and franchisees' freedom of contract at least over termination terms are not beneficial to franchisees as a class or to franchisors. Faced with termination restrictions, franchisors switch to less efficient franchisor operated establishments or simply cut back on business altogether. As documented above, these changes could also have negative effects on workers in a state. These effects are both statistically significant and large in magnitude and survive a number of robustness checks.

References

Alchian, Armen, and Harold Demsetz (1972). "Production, Information Costs, and Economic Organization." *American Economic Review*, 62(5): 777-795

Bertrand, Marianne, Esther Duflo, and Sendhil Mullainathan (2004). "How Much Should We Trust Differences-in-Differences Estimates?" *Quarterly Journal of Economics*, 119(1): 249-275.

Bhattacharyya, Sugato, and Francine Lafontaine (1995). "Double-Sided Moral Hazard and the Nature of Share Contracts." *RAND Journal of Economics*, 26(4): 761-781.

Brickley, James, Frederick Dark, and Michael Weisbach (1991). "The Economic Effects of Franchise Termination Laws." *Journal of Law and Economics*, 34(1): 101-132.

Coase, Ronald (1937). "The Nature of the Firm," *Economica*, 4(16): 386-405.

Epstein, Richard (1975). "Unconscionability: A Critical Reappraisal," *Journal of Law and Economics*, 18(2): 293-315.

Klein, Benjamin (1995). "The Economics of Franchise Contracts," *Journal of Corporate Finance*, 2(1-2): 9-37.

Lafontaine, Francine (1992). "Agency Theory and Franchising: Some Empirical Results," *RAND Journal of Economics*, 23(2): 263-283.

Lafontaine, Francine, and Kathryn Shaw (1999). "The Dynamics of Franchise Contracting: Evidence from Panel Data," *Journal of Political Economy*, 107(5): 1041-1080.

Jensen, Michael, and William Meckling (1976). "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure," *Journal of Financial Economics*, 3(4): 305-360.

Rubin, Paul (1978). "The Theory of the Firm and the Structure of the Franchise Contract," *Journal of Law and Economics*, 21(1): 223-233.

Stover, Jason (2004). "No Cure, No Problem: State Franchise Laws and Termination for Incurable Defaults," *Franchise Law Journal*, 23: 217-224.

Table 1
Summary Statistics for Fast Food Franchisors

	Franchised Units		Operated Units		Total Units	
Firm	Mean	SD	Mean	SD	Mean	SD
Burger King	122	130	12	24	134	140
Dunkin Donuts	59	112	0	1	59	113
Domino's Pizza	74	74	16	29	90	93
KFC	64	66	34	47	100	105

Note: All data were collected from UFOC's filed with the Maryland Attorney General's Office.

Table 2
Effect of Iowa's Franchise Law on Fast Food Establishments – Negative Binomial Model
(robust standard errors in parentheses)

	Full Sample			Midwest Only		
Dependent Variable	Franchised units	Franchisor run units	Total units	Franchised units	Franchisor run units	Total units
Termination	-0.228	1.633	-0.198	-0.182	1.141	-0.207
Law	(0.096)	(0.395)	(0.104)	(0.100)	(0.568)	(0.108)
Population	0.004	-0.003	-0.005	0.001	-0.003	-0.003
	(0.020)	0.001	(0.002)	(0.003)	(0.002)	(0.003)
Per Capita	0.002	-0.000	0.003	-0.000	-0.005	0.000
Income	(0.002)	(0.005)	(0.002)	(0.007)	(0.006)	(0.001)
Sec.Ed. (%)	0.001	-0.179	-0.011	-0.040	0.217	-0.043
	(0.008)	(0.025)	(0.006)	(0.021)	(0.169)	(0.020)
Black (%)	7.557	2.067	5.143	11.796	54.393	-4.239
	(2.602)	(1.272)	(2.107)	(12.162)	(125.067)	(10.337)
15-19 (%)	6.253	-186.075	-3.074	-0.411	58.912	-17.761
	(3.159)	(12.512)	(2.725)	(14.733)	(105.515)	(13.125)
Firm-State Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Effects	Yes	Yes	Yes	Yes	Yes	Yes

Table 3
Descriptive Statistics for Percent of State Workforce in Each Industry

SIC Industry	Classification	Mean	SD
Contractors	Non-Franchising	0.014	0.004
Lumber Products	Non-Franchising	0.009	0.010
Textiles	Non-Franchising	0.008	0.009
Depository Institutions	Non-Franchising	0.017	0.005
Auto Dealers	Franchising (Repeat)	0.020	0.005
Eating & Drinking	Franchising (Non-Repeat)	0.046	0.009
Hotels	Franchising (Non-Repeat)	0.016	0.022
Auto Repairs	Franchising (Repeat)	0.009	0.002

Note: Data collected from Bureau of Economic Analysis and cover years 1969-2000.

Table 4
Effect of Termination Laws on Employment in Franchise Industries
(robust standard errors in parentheses)

	Franchise Industries Only	Non-Franchising Industries as Control
Termination Law	-0.0002	-0.0016
	(0.0001)	(0.0002)
Per Capita Income	-0.0001	--
	(0.0000)	
Industry-Specific Year Effects	Yes	Yes
Industry-Specific State Effects	Yes	Yes
State-Specific Year Effects	No	Yes
Adjusted R^2	0.987	0.975

Note: Weighted least squares regressions are presented; each observation is weighted by total state employment.

Table 5
Effect of Termination Laws on Employment in Franchise Industries
with Non-Repeat Business
(robust standard errors in parentheses)

	Franchise Industries Only (repeat business industries as control)	Non-Franchising Industries as Control
Termination Law for Non-Repeat Industries Only	-0.00054	-0.00054
	(0.00026)	(0.00027)
Termination Law	--	-0.00132
		(0.00024)
Industry-Specific Year Effects	Yes	Yes
Industry-Specific State Effects	Yes	Yes
State-Specific Year Effects	No	Yes
Adjusted R^2	0.987	0.975

Note: Weighted least squares regressions are presented; each observation is weighted by total state employment.